

DYNAMIC SPECIAL CHARACTER SELECTION  
FOR USE IN BYTE ALIGNMENT CIRCUITRY

Abstract of the Disclosure

**[0071]**      Circuitry for locating the boundaries of  
5 bytes in a data stream is provided. The data stream  
typically has comma or header information that provides  
an indication of the byte boundaries. When circuitry  
detects this information, it can align the byte  
boundaries and thereby provide byte-aligned data to  
10 utilization circuitry (e.g., a programmable logic  
device). In accordance with this invention, circuitry  
can select different special characters for use in  
detecting the byte boundaries, where the special  
characters are different lengths. Circuitry aligns the  
15 byte boundaries based on the selected special character  
when enabled by a control signal. Once aligned,  
circuitry can provide a signal indicating which special  
character was used to align the boundaries. Another  
advantage of the invention is that it eliminates  
20 alignment problems associated with system latency.  
Circuitry automatically locks alignment to a first  
instance of a detected special character independent of  
an external control signal.